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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,300	07/30/2003	Wai Mun Lee	8317-194-999	9136

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EXAMINER

DELCOTTO, GREGORY R

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,300

Applicant(s)

LEE, WAI MUN

Examiner

Gregory R. Del Cotto

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/12/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1751

DETAILED ACTION

1. Claims 1-20 are pending. Note that, the Examiner asserts that claims 1-20 all have various effective filing dates which are as follows:

Claims 1 and 2: 11/5/1990

Claims 3 and 7: 7/9/1992

Claims 4, 19, and 20: 6/21/1993

Claims 5, 6, and 8-18: 7/30/03 due to the presence of "about 2.5% to about 45% by weight neat hydroxylamine".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Art Unit: 1751

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 6, 8-13, and 16 are rejected under 35 U.S.C. 102(b) as anticipated by Lee et al (US 5,911,835)

'835 teaches a method for removing resists and etching residue from substrates containing at least one nucleophilic amine compound having oxidation and reduction potentials, at least one organic solvent, water, and optionally, a chelating agent. The composition, while providing for adequate stripping and cleaning upon initial use of the composition following mixing, has only short term stability. The nucleophilic amine

Art Unit: 1751

compound and organic solvent compositions of the composition preferably are maintained separate from each other until it is desired to use the composition.

Thereafter, the components are combined. See Abstract. Specifically, '835 teaches the use a composition containing hydroxylamine, diglycolamine, catechol, and DMSO, which is use to remove resists from a substrate.

'835 discloses the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of '835 anticipate the material limitations of the instant claims.

Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ward (US 5,419,779), Lee (US 6,000,411), or Lee (US 5,672,577).

Ward teaches an aqueous stripping composition comprising a mixture of about 55% to 70% by weight of monoethanolamine, about 22.5 to 15% by weight of hydroxylamine, and water. The composition is suitable for stripping photoresists. See Abstract. A corrosion inhibitor may be added to the composition in amounts up to 10% by weight an includes catechol or pyrogallol. See column 2, lines 40-65.

'411 teaches a composition for removing resists and etching residue from a substrate. See column 1, lines 15-30. The cleaning compositon for removing resist and etching residue contains from about 5% to 50% by weight of hydroxylamine, from about 10% to 80% by weight of an alkanolamine, from about 5% to 30% by weight of a chelating agent, and water. See column 6, lines 10-30. Examples of substrates from

which the stripping and cleaning compositions remove resists include aluminum, titanium, etc. See column 8, lines 25-50.

'577 teaches a composition for removing resists and etching residue from a substrate. See column 1, lines 15-30. The cleaning composition for removing resist and etching residue contains from about 5% to 50% by weight of hydroxylamine, from about 10% to 80% by weight of an alkanolamine, from about 5% to 30% by weight of a chelating agent, and water. See column 6, lines 10-30. Examples of substrates from which the stripping and cleaning compositions remove resists include aluminum, titanium, etc. See column 8, lines 25-50.

With respect to instant claims 5 and 6, the Examiner asserts that these claims do not limit the process but are product-by-process limitations. The Examiner asserts that the composition as taught by Ward, '411, or '577 would inherently have the same cleaning properties as the composition used in the process recited by the instant claims because Ward, '411, or '577 teaches the use of a composition containing the same components in the same proportions as recited by the instant claims. Ward, '411, or '577 discloses the claimed invention with sufficient specificity to constitute anticipation. Note that, claims 5 and 6 are product by process claims; even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695,

Art Unit: 1751

698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113. Once a product appearing to be substantially identical is found a 35 USC 102/103 rejection is made, the burden shifts to the applicant to show an unobvious result. See MPEP 2113.

Accordingly, the broad teachings of Ward, '411, or '577 anticipate the material limitations of the instant claims.

Alternatively, even if the broad teachings of Ward, '411, or '577 are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art to formulate a composition having the same properties as recited by the instant claims because Ward teaches that the types and amounts of components added to the composition may be varied.

Claims 8-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward (US 5,419,779), Lee (US 6,000,411), or Lee (US 5,672,577).

Ward, '411, or '577 are relied upon as set forth above. Note that, the Examiner asserts that the "polar solvent" as recited by instant claims 10 and 12 may be the same as the alkanolamine compound as indicated on page 11, para. 43. Ward, '411, or '577 discloses the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of Ward anticipate the material limitations of the instant claims.

Claims 14, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 5,911,835), Lee (US 5,672,577), or Lee (US 6,000,411).

'835, '577, or '411 are relied upon as set forth above. However, '835, '577, or '411 do not teach, with sufficient specificity, removing a resist using a composition

Art Unit: 1751

containing the specific amount of water or an organic acid as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to remove a resist using a composition containing the specific amount of water or an organic acid as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of '835, '577, or '411 suggest removing a resist using a composition containing the specific amount of water or an organic acid as recited by the instant claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-50 of U.S. Patent No. 6,825,156, claims 1-53 of US 6,564,812, claims 1-13 of US 6,399,551, claims 1-21 of US 6,367,486, claims 1-6 of US 6,276,372, claims 1-19 of US 6,000,411, claims 1-17 of US 5,911,835, and claims 1-11 of US 5,482,566. Although the conflicting claims are not

Art Unit: 1751

identical, they are not patentably distinct from each other because claims 1-50 of U.S. Patent No. 6,825,156, claims 1-53 of US 6,564,812, claims 1-13 of US 6,399,551, claims 1-21 of US 6,367,486, claims 1-6 of US 6,276,372, claims 1-19 of US 6,000,411, claims 1-17 of US 5,911,835, and claims 1-11 of US 5,482,566 encompass the material limitations of the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to remove a resist using a composition containing a hydroxylamine, alkanolamine, solvent, chelating agent, the specific amount of water or an organic acid as recited by the instant claims, with a reasonable expectation of success, because claims 1-50 of U.S. Patent No. 6,825,156, claims 1-53 of US 6,564,812, claims 1-13 of US 6,399,551, claims 1-21 of US 6,367,486, claims 1-6 of US 6,276,372, claims 1-19 of US 6,000,411, claims 1-17 of US 5,911,835, and claims 1-11 of US 5,482,566 suggest removing a resist using a composition containing hydroxylamine, alkanolamine, solvent, chelating agent, specific amount of water or an organic acid as recited by the instant claims.

Claims 1-3, 5-8, 11-15, 19, and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,242,400 or claims 1-14 of US 5,381,807. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-15 of U.S. Patent No. 6,242,400 or claims 1-14 of US 5,381,807 encompass the material limitations of the instant claims.

Art Unit: 1751

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to remove a resist using a composition containing a hydroxylamine, alkanolamine, solvent, chelating agent, the specific amount of water or an organic acid as recited by the instant claims, with a reasonable expectation of success, because claims 1-15 of U.S. Patent No. 6,242,400 or claims 1-14 of US 5,381,807 suggest removing a resist using a composition containing hydroxylamine, alkanolamine, solvent, chelating agent, specific amount of water or an organic acid as recited by the instant claims.

Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/442858. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-19 of 10/442858 encompass the material limitations of the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to remove a resist using a composition containing a hydroxylamine, alkanolamine, solvent, chelating agent, the specific amount of water or an organic acid as recited by the instant claims, with a reasonable expectation of success, because claims 1-19 of 10/442858 suggest removing a resist using a composition containing hydroxylamine, alkanolamine, solvent, chelating agent, specific amount of water or an organic acid as recited by the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/630,300
Art Unit: 1751

Page 11



Gregory R. Del Cotto
Primary Examiner
Art Unit 1751

GRD
October 1, 2005